

REMARKS

Claims 16-22, 25-35, and 39-40 are pending in the present application. Claims 18, 19, 25, 26, 31, 32, and 39 have been amended. Claims 23, 24, and 36-38 have been canceled without prejudice or disclaimer.

Claims 18, 19, 31, and 32 and were amended to remove the formerly recited "configured as." These amendments are not intended to narrow the scope of any limitation.

Claims 25 and 26 were amended to correct an inadvertent error: the video images are fed through the "laser scanner" not the "tube lens" and the beam splitter is included in the "laser scanner" not the "tube lens." Support for these amendments is found in the original specification at page 4, lines 10-14 and lines 20-26.

Claim 39 was amended in order to provide proper antecedent basis and to clarify that the "objective" recited in claim 29 is being referred to in claim 39, in light of the Examiner's rejection under §112, second paragraph. This amendment is not intended to narrow the scope of any limitation.

Accordingly, no new matter has been added.

Based on the above amendments and following remarks, Applicants respectfully request reconsideration all outstanding rejections.

Examiner Interview

Applicants would like to thank Examiner Winstedt for the constructive interview conducted on March 1, 2001 with Applicants' representative. In the Interview, the Yano, White, and Dewald references were discussed in relation to independent claims 16 and 29. In particular, Applicants' representative pointed out that Yano's tube lens and objective should correspond to elements 32 and 30 (See Yano Fig. 1) as opposed to elements 9 and 15 as alleged in the December 5, 2000 Office Action. In addition, Applicants' representative pointed out that neither White nor Dewald, either taken alone or in combination, show the claimed "tube lens" as recited in claims 16 and 29. Accordingly, Applicants submitted that a prima facie case of obviousness had not been established with respect to the rejections 16 and 29 (and their dependent claims) based on the White/Dewald combination.

The Examiner agreed that the White reference did not show a tube lens. The Examiner also stated that she would look into the matter concerning Yano's tube lens further upon receipt of an after-final amendment.

Rejections Under 35 U.S.C. § 112, first and second paragraphs

In the Office Action dated December 5, 2000, claims 23, 24, and 36 were rejected under 35 U.S.C. § 112, first paragraph. Without acquiescing to the propriety of the rejection, Applicants have cancelled claims 23, 24, and 36 without prejudice or disclaimer, rendering this rejection moot.

In the Office Action, claim 39 was rejected under 35 U.S.C. § 112, second paragraph as being indefinite. As discussed above, claim 39 was amended to address this rejection.

Based on the above, Applicants respectfully request reconsideration of the rejections based on 35 U.S.C. § 112, first and second paragraphs.

Rejections Under 35 U.S.C. § 102(e)

In the Office Action, claims 29, 30, 37, and 38 were rejected under 35 U.S.C. § 102(e) as being anticipated by Yano. (US 5,701,197). Based on the following remarks, Applicants respectfully traverse these rejections.

Yano cannot anticipate claim 29 because Yano does not disclose "an optical system for image rotation disposed in the path of rays of the microscope, wherein the optical system is disposed between the tube lens and objective in the path of rays of the microscope." In the Office Action, Yano's beam splitter 9 was identified as a "tube lens." Applicants respectfully disagree because the claimed tube lens is not a beam splitter. Instead, in a conventional microscope, as would be understood by one of ordinary skill, a tube lens is a lens that is used to generate an intermediate image. This intermediate image is viewed by an observer with the ocular. The formation of the intermediate image is not accomplished with a beam splitter. As shown in Yano, Applicants respectfully submit that lens 32 (see Yano Figs. 1 and 2) corresponds to what is commonly understood as a tube lens. As such, the claimed structure, where the optical system is disposed between the tube

lens and objective in the path of rays of the microscope, is not disclosed, taught, or suggested by Yano.

Accordingly, for at least the reasons mentioned above, Yano cannot anticipate claim 29 or claim 30, which depends from claim 29. The rejections of claims 37 and 38 are now moot in light of the above amendments.

Rejections Under 35 U.S.C. § 103(a)

In the Office Action, claims 16-18, 20-26, 30, 31, 33-35, 37, and 38 were rejected under 35 U.S.C. § 103(a) as being unpatentable over White et al. (US 5,561,554) in view of Dewald et al. (US 5,365,288). Claims 19 and 32 were rejected under 35 U.S.C. § 103(a) as being unpatentable over White et al./Dewald et al. in further view of Wasmund et al. (US 4,181,436). Claim 27 was rejected under 35 U.S.C. § 103(a) as being unpatentable over White et al./Dewald et al. in further view of Yano. Claims 28 and 40 were rejected under 35 U.S.C. § 103(a) as being unpatentable over White et al./Dewald et al. in further view of Kapitza (US 5,896,224). Applicants respectfully traverse these rejections based on the reasons stated below.

The White et al./Dewald et al. combination does not teach or suggest each element recited in independent claims 16 and 29. Neither White et al. nor Dewald et al. teaches or suggests the claimed “tube lens.” As discussed at the Examiner Interview, White’s beam splitter “BS” cannot be considered a tube lens. Further, Dewald fails to teach or suggest a tube lens, an ocular, or an objective. Accordingly, a *prima facie* case of obviousness has not been established.

In addition, Applicants respectfully submit that the claimed structure of the claimed invention is neither taught nor suggested by the White/Dewald combination. As discussed in the specification, the claimed invention addresses the problem of image rotation and the displacement of the object. See specification, page 2, lines 3-5. In order to overcome this problem, optical rotation is performed by the claimed optical system for image rotation being provided “in the beam path of the microscope,” in which the object remains positioned in an unchanged manner. See specification, page 2, line 29 – page 3, line 5. In this manner, an object can be measured from a plurality of angular positions while avoiding rotation of the

object. See specification, page 2, lines 14-16. The particular placement of the optical system for image rotation as claimed is also described at page 3, lines 22-29 and page 4, lines 10-19.

In addition, Applicants respectfully submit that the statements by the patent office relating to the "rearranging" of parts involving only routine skill (see Office Action, page 6, *In re Japikse* citation) are not applicable in the present application. As stated at M.P.E.P. 2144.04 (VI. C.), the same section that references *In re Japikse*: "[however, the] mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for the worker in the art, without benefit of appellant's specification, to make the necessary changes in the reference device." (citations omitted).

Moreover, the principle of operation of the proposed White et al./Dewald et al. combination would need to be substantially reconstructed in order to render the claimed invention obvious. For example, the Dewald invention relates to light projectors. White on the other hand, discloses a confocal imaging system. Even if combined, *arguendo*, the references still do not teach or suggest a microscope or confocal microscope. Such a reconstruction would change the principle of operation of both White et al. and Dewald et al., and is not permitted according to M.P.E.P. 2143.01.

Accordingly, for at least the reasons mentioned above, Applicants respectfully submit that claims 16 and 29 are patentable over the references of record. In addition, pending dependent claims 17-18, 20-22, 25-26, 30-35, and 39-40 are also patentable for at least the reasons mentioned above.

Conclusion

If Applicants have not accounted for any fees required by this Amendment, the Commissioner is hereby authorized to charge to our Deposit Account No. 19-0741. If Applicants have not accounted for a required extension of time under 37 C.F.R. § 1.136, that extension is requested and the corresponding fee should be charged to our Deposit Account.


The Examiner should feel free to contact the undersigned at (202) 672-5592, if there is anything the undersigned can do to assist the Examiner or expedite prosecution of the application.

Respectfully submitted,

Date

3/5/01

By



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Exhibit A

Marked Up Copy of Amended Specification Paragraphs

A [forth] fourth embodiment is shown in Fig. 4. The optical arrangement 2 for image rotation is configured as a prism 2a. The prism 2a is arranged in this embodiment between the tube lens 6 and the objective 4. Other arrangements of the prism are possible as well (see e.g., the microscope embodiments shown in Fig. 2 and Fig. 3).

Exhibit B

Marked Up Version of Amended Claims Showing Changes Made

18. (Twice Amended) Confocal microscope according to claim 17, wherein the prism is [configured as] a dove prism.

19. (Twice Amended) Confocal microscope according to claim 17, wherein the prism is [configured as] an Abbe prism.

25. (Twice Amended) Confocal microscope according to claim 16, wherein the optical system for image rotation serves to rotate all scanning and video images fed through the [tube lens] laser scanner into the microscope.

26. (Twice Amended) Confocal microscope according to claim 16, wherein the [tube lens] laser scanner further comprises a fixed thick beam splitter to avoid interferences.

31. (Amended) Microscope according to claim 30, wherein the prism is [configured as] a dove prism.

32. (Amended) Microscope according to claim 30, wherein the prism is [configured as] an Abbe prism.

39. (Amended) Microscope according to claim 29, wherein the objective comprises [further comprising:] an axially movable objective for the photographing of z-sections in a desired directional orientation.